

PROCEEDINGS
OF THE
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THE TWO FORMS OF RED SPELERPES OCCURRING
AT RALEIGH, N. C.

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A request this fall from Mr. E. R. Dunn of Smith College, who has been recently doing work on the salamanders, for specimens of the "sparsely spotted form of *Spelerpes ruber*, that seems to occur at Raleigh," aroused my curiosity, and later on, in December, I overhauled all my red Raleigh *Spelerpes*.

I may add, by way of explanation, that my original identification of *Spelerpes ruber* at Raleigh, had been made by means of Jordan's "Manual of Vertebrates," and that the common form at Raleigh had become firmly fixed in my mind as "*ruber*."

On looking over my material it became evident that two forms existed at Raleigh side by side, which appeared to be probably distinct species, and that the common form instead of being "*ruber*," was the *Spelerpes montanus* of Baird. A letter received a little later from Mr. Dunn, to whom I had written on the subject, stated that he had compared Raleigh specimens with the type of *montanus*, and was convinced that they were the same.

These two forms, as represented in my Raleigh series, differ as follows:

Spelerpes ruber. Whole upper parts, including head, down to and inclusive of upper jaw, thickly spotted with black, the spots on the back larger, and more or less confluent. Under parts finely dusted with black along center of belly. Edges of lower jaw more or less spotted with black. Ground color more orange than in *montanus*. Palatine teeth curving forward in ten specimens to meet parasphenoids at an acute

angle, in one to meet them at right angles. Parasphenoid patches well separated, nearly parallel, not approximated in front. Head flatter and broader than in *montanus*, its width contained 4.8 to 5.6 times in length to groin. Tail from groin less than one-half the total length. Form rather short and stout. Sixteen specimens from Raleigh examined, eleven of which were measured and examined for dental characters.

Spelerpes montanus. Upper parts with thinly or thickly scattered round black spots, these never confluent anywhere, and few in number or absent on snout and top of head. Under parts with or without large or small black spots or dots, ground color darker red, less orange than in *ruber*. Edges of lower jaw often immaculate in small specimens, usually more or less heavily spotted or clouded with black in adults. Palatine teeth meeting parasphenoids at right angles in about one-half of the specimens, gently curving backward from in front, to meet them without evident angle in the other half. Parasphenoids approximated closely in front and in most specimens divergent behind. Head higher and more arched, particularly back of the eyes, its width contained 5.7 to 7.1 times in length to groin, in fifteen of the specimens measured, in the sixteenth 5 times in length to groin, this last being an unusually short and stout specimen. Tail from groin often one-half total length. Form both of tail and body comparatively long and slender. To this form belong my figures of "*ruber*," in the plate accompanying my description of *Spelerpes schencki* (Proc. Biol. Soc. Wash., 1912, pp. 135-140). Number of specimens examined 112, all from Raleigh, N. C., of which number 16 were measured and examined for dental characters.

Both *ruber* and *montanus* acquire with age a uniform purplish salmon color above which wholly or partially suppresses the markings of the dorsal surface.